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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,811	10/11/2005	Johannes Baier	DE 030105	5539

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BRIARCLIFF MANOR, NY 10510

EXAMINER

SANEI, HANA ASMAT

ART UNIT	PAPER NUMBER
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2879

MAIL DATE	DELIVERY MODE
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08/28/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/552,811

Applicant(s)

BAIER ET AL.

Examiner

Hana A. Sanei

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 June 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on 6/11/07 has been entered.

Claims 1-8 are pending in the instant application.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

A consisting essentially of' claim occupies a middle ground between closed claims that are written in a consisting of' format and fully open claims that are drafted in a comprising' format [MPEP 2111.03]. For purposes of examination, Examiner will interpret the phrase "consists essentially of" in a fully open claim format, since applicant added another step/material, as disclosed in Claim 7 to independent Claim 1. The inclusion of a new step/material renders the independent Claim 1 open.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-4, 6, 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Born et al (US 6137230) of the previous record.

Regarding Claim 1, Born teaches a filling (11, see at least Fig.1) consisting essentially of zinc (discharge space is Hg-free and the ionizable filling further comprises Zn, Col. 1, lines 50-54), a halogen (iodine, Col. 2, lines 19-26) and a rare gas (Xe, Col. 2, line 14). It should be noted that since the lamp contains ZnI_2 , then is it sufficient to conclude that some zinc and some iodine in their elemental forms must be present in the lamp.

Regarding Claim 2, Born teaches a filling (11, see at least Fig.1) comprising zinc (discharge space is Hg-free and the ionizable filling further comprises Zn, Col. 1, lines 50-54), iodine (iodine, Col. 2, lines 19-26) and a rare gas (Xe, Col. 2, line 14).

Regarding Claim 3, Born teaches that an overall amount of the halogen is about 1 and 30 $\mu\text{mol}/\text{cm}^3$ (any one of NaI, TII, RE-I in units of $\mu\text{mol}/\text{cm}^3$, Col. 2, lines 19-26), the overall amount zinc is more than 1 $\mu\text{mol}/\text{cm}^3$ (4 $\mu\text{mol}/\text{cm}^3$, Col. 2, lines 29-31), and the zinc/halogen molar ratio is greater than 1 (Col. 2, lines 19-26, Col. 2, lines 29-31).

Regarding Claim 4, Born teaches that the zinc/atomic halogen molar ratio is greater than 1 (Col. 2, lines 19-26, Col. 2, lines 29-31).

Regarding Claim 6, Born teaches that a coupling-in of energy takes place by means of metal electrodes (4, 5).

Regarding Claim 8, Born teaches a lamp tube consists of quartz, aluminum oxide, or yttrium-aluminum garnet (ceramic wall, Col. 2, lines 49-50).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Born et al (US 6137230) in view of Hadeishi et al (US 4941743).

Regarding Claim Born, Born teaches the invention set forth above (see rejection in Claim 1 above). Born fails to teach that the in coupling of energy takes place by means without electrodes in the microwave range.

In the same field of endeavor of discharge lamps, Hadeishi teaches that the discharge lamp is in the microwave range (Col. 3, lines 36-38) provided with (electrodes 32, 34; Fig. 1) or without electrodes (EDL, Col. 1, lines 6-16; Col. 1, lines 30-34), thus exemplifying recognized equivalent materials of the lamp in the art. Hadeishi teaches the suitability of using a discharge lamp being provided with or without electrodes in order to ensure high stability and long life (Col. 1, lines 30-34). Hadeishi further teaches the likes of a lamp that comprises two electrodes 32, 34 having the characteristics of an electrodeless discharge lamp, thereby integrating the concepts of an electrodeless lamp with that of a discharge lamp that already occupies two opposing electrodes.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the discharge lamp of Born as electrodeless instead of with two opposing electrodes, since the selection of any of these known equivalents would be considered within the level of ordinary skill in the art as evidenced by Hadeishi's teaching.

3. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Born et al (US 6137230) in view of Caruso et al (US 4742268).

Regarding Claim 7, Born teaches the invention set forth above (see rejection in Claim 1 above). Born fails to teach the addition of calcium halide, with the overall amount of calcium being at least 1 nmol/cm³.

In the same field of endeavor, Caruso teaches a metal halide lamp comprising a calcium halide (CaI₂, Col. 4, lines 43-51), with the overall amount of calcium being at least 1 nmol/cm³ (5.48 μmol/cm³) for the purposes of ensuring low minimum perceptible color differences and a high color preference index (Col. 4, lines 60-64). Caruso teaches the benefit of an addition of calcium by teaching the incremental increase of the calcium iodide concentration tested in a controlled experiment (see at least Table 1). Filling compositions Additive A and Additive B are compared, their difference lying in the amount of calcium iodide increases while the composition of the fill remainder is held constant. Caruso does this to exhibit the benefits demonstrated when the amount of calcium iodide is increased from 5.5 mg to 6.6 mg of CaI₂.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to add the calcium iodide, as disclosed by Caruso, in the

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discharge lamp of Born in order to/for providing ensure low minimum perceptible color differences and a high color preference index.

Response to Arguments

Applicant's arguments filed on 4/13/07 have been fully considered but they are not persuasive.

A. In response to Applicant's arguments that Born et al. does not disclose the claimed invention as stated in Claim 1, the Examiner respectfully disagrees.

That the applicant changed the scope of the claim from the filling "comprising only zinc, a halogen, and a rare gas" to the filling "consisting essentially of zinc, a halogen, and a rare gas," the claim no longer singularly claims zinc, a halogen, and a rare gas. In addition, the further dependent claim, Claim 7, is contradictory to a closed claim format.

For the reasons stated above, the rejection of the claims is deemed proper.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hana A. Sanei whose telephone number is (571)-272-8654. The examiner can normally be reached on Monday- Friday, 9 am - 5 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR.

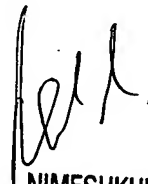
Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).



Hana A. Sanei
Examiner



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